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Deputy Secretary

Original via UPS -- Copy via Electronic Mail

July 24, 2017
Mr. William K. Honker, Director
Water Quality Protection Division (6WQ)
U. S. Environmental Protection Agency
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Re: State Certification

Dear Mr. Honker:

Enclosed, please find the state certification for the following proposed National Pollutant Discharge Elimination System (NPDES) permit:

NM0030503
Village of Angel Fire
Wastewater Treatment Plant

If any, comments and conditions are enclosed on separate sheets.

U.S. Environmental Protection Agency (USEPA) proposes to regulate discharges under the above-referenced NPDES Individual Permit. A state Water Quality Certification is required by the federal Clean Water Act (CWA) §401 to ensure that the action is consistent with state law (New Mexico Water Quality Act, sections 74-6-1 through 74-6-17, New Mexico Statutes Annotated (NMSA) 1978) and complies with state Water Quality Standards [*State of New Mexico, Standards for Interstate & Intrastate Surface Waters, New Mexico Water Quality Control Commission, 20.6.4 New Mexico Administrative Code (NMAC)*], the Water Quality Management Plan/Continuing Planning Process, including Total Maximum Daily Loads (TMDLs), and the Antidegradation Policy.

Pursuant to State regulations for permit certification (Section 20.6.2.2001 NMAC), USEPA jointly with NMED issued a public notice of the draft permit and announced a public comment period posted on the USEPA web site on April 27, 2017 and NMED web site at https://www.env.nm.gov/surface-water-quality/public-notices/ on April 28, 2017. The NMED public comment period ended on June 30, 2017. NMED did receive comments during the public comment period and considered them as part of this certification.

Sincerely,
/S/ Shelly Lemon

Shelly Lemon, Bureau Chief
Surface Water Quality Bureau

cc: (w/enclosures)

Ms. Evelyn Rosborough, USEPA (6WQ-NP) via e-mail

Mr. Brent Larsen, USEPA (6WQ-PP) via e-mail

Mr. Rick Tafoya, Village Manager, Angel Fire P.O. Box 610 /Angel Fire, NM 87710

Mr. Robert Italiano, NMED District 2 Manager via e-mail

Mr. Samuel Coleman, Acting Regional Administrator
Environmental Protection Agency
1445 Ross Avenue
Dallas, TX 75202-2733

07/24/2017

STATE CERTIFICATION

RE: Village of Angel Fire Wastewater Treatment Plant, NM0030503

Dear Mr. Coleman:

The New Mexico Environment Department has examined the proposed NPDES permit above. The following conditions are necessary to assure compliance with the applicable provisions of the Clean Water Act Sections 208(e), 301, 302, 303, 306, and 307 and with appropriate requirements of State law. Compliance with the terms and conditions of the permit and this certification will provide reasonable assurance that the permitted activities will be conducted in a manner which will not violate applicable water quality standards and the water quality management plan and will be in compliance with the antidegradation policy.

The State of New Mexico

( ) certifies that the discharge will comply with the applicable provisions of Sections 208(e), 301, 302, 303, 306 and 307 of the Clean Water Act and with appropriate requirements of State law

(X) certifies that the discharge will comply with the applicable provisions of Sections 208(e), 301, 302, 303, 306 and 307 of the Clean Water Act and with appropriate requirements of State law upon inclusion of the following conditions in the permit (**see attachments**)

( ) denies certification for the reasons stated in the attachment

( ) waives its right to certify

In order to meet the requirements of State law, including water quality standards and appropriate basin plan as may be amended by the water quality management plan, each of the conditions cited in the draft permit and the State certification shall not be made less stringent.

The Department reserves the right to amend or revoke this certification if such action is necessary to ensure compliance with the State's water quality standards and water quality management plan.

Please contact Sarah Holcomb at (505) 827-2798, if you have any questions concerning this certification. Comments and conditions (if any) pertaining to this draft permit are attached.

Sincerely,

/S/ Shelly Lemon

Shelly Lemon, Chief
Surface Water Quality Bureau

The WQMP/CPP states in section IV. Total Maximum Daily Loads (TMDLs). B.1:

> *"Pursuant to 40 CFR 130.12(a), NPDES permits must be consistent with the WQMP. Each NPDES permit issued must contain requirements necessary to achieve water quality standards [40 CFR 122.4(d)]. Therefore, where a WLA has been assigned through the TMDL process, the WLA must be incorporated into the permit as specific effluent limitations. The process for establishing individual effluent limitations is described in Section V of this WQMP/CPP. If an application for a new or revised permit is received for a discharge into an impaired waterbody with an approved TMDL but with no available WLA, the permit may be issued without revision of the TMDL provided the discharge is at or less than the in-stream TMDL target concentration. In the case of a new permit, the WLA will be calculated using the TMDL target concentration and design flow (municipal wastewater treatment plants and domestic wastewater treatment plants), the 30-day average flow from the most recent two-year flow data, or the long-term average flow or estimate as specified in EPA's Procedures for Implementing NPDES Permits in New Mexico. (See also Section V.B of this WQMP/CPP.) In the case of a revised permit for which there is already an existing WLA but there has been a change to the design flow, the revised permit will include the existing WLA in addition to the calculation using the TMDL target concentration and the increase in design flow.*

NMED is providing this certification consistent with 40 CFR 124.53(e)(1) and (2). Each condition of the draft permit and this certification cannot be made less stringent except unless otherwise indicated below. Conditions in the Draft Permit can be made less stringent without violating the requirements of State law, including water quality standards, if new information becomes available. Conditions must meet applicable federal law or regulations.

Background:
EPA's approach to calculating effluent limits under this permit results in a larger WLA than anticipated to the stream for the seven months of the year where the Village has a consistent discharge. Typically, the Village does not discharge wastewater effluent from May through September.

EPA has calculated monthly limitations for total phosphorus at 21.9 lbs/month (almost 10 lbs/month more than anticipated by the TMDL), and 651.8 lbs/month for total nitrogen (almost 276.8 lbs/month more than anticipated by the TMDL). The TMDL anticipates a WLA of 0.42 lbs/day for total phosphorus, and 12.5 lbs/day for total nitrogen, which when calculated to a monthly average would result in a value of 12.6 lbs/month of total phosphorus, and 375 lbs/month of total nitrogen. However, calculating a monthly loading value in pounds per month is not consistent with the TMDL. Limits should be expressed in lbs/day, and expressed as a **30-day monthly average**.

Additionally, by not allowing a portion of the TMDL to be available to the Village during the summer, it essentially limits the discharge ability of the Village during that portion of the year. An NPDES-permitted facility cannot discharge a pollutant of concern into an impaired reach of a receiving waterbody when there is an effective TMDL, unless there is a wasteload allocation available to do so (40 CFR 122.44(d)(1)(vii)(B)). The WQMP states that NPDES permits must contain requirements necessary to achieve water quality standards (40 CFR 122.4(d)). Allowing loading to double the allowable calculated loading in the TMDL to Cieneguilla Creek for a shorter period of time does not guarantee that water quality standards will be met.

NMED does not have issues with the derivation of seasonal effluent limits for nutrients, as per the permittees' request, but the following approach would be acceptable. If EPA intends to develop seasonal effluent limitations, it would be advisable to confer with NMED SWQB on the appropriate calculations.

When evaluating nutrients, one must consider the effect of nutrient pollution. It is not a toxic pollutant in the sense that one would see an immediate stream response on a day to day basis. It takes a long-term evaluation to see the effects. With that in mind, permit limits should ONLY be in place for a 30 day average loading value expressed in pounds per day calculated per the TMDL. If EPA requires a daily concentration measurement to be in the permit, it should be expressed as a "report" requirement without a limit.

NMED wrote nutrient TMDLs in a phased approach in recognition that the ecoregion criteria calculated to meet water quality standards is technologically unachievable. TMDLs are typically written in three phases:

Phase n	Nutrient ecoregion criteria
Phase I	Limits of the specific WWTP technology
Phase II	Limits of technology (overall)

Angel Fire is a Sequencing Batch Reactor system, which according to EPA's fact sheet (attached to this certification) has a technological treatability limit of 8 mg/L total nitrogen and 1 mg/L total phosphorus.

Phase I limits for the Angel Fire WWTP shall be based on the limits of technology for this SBR.

From the TMDL, the WLA shall be calculated as (TN or TP limit of technology, concentration value) x design flow x 8.34 = WLA

This results in the following WLAs:
TN = 8 mg/L x 0.5 x 8.34 = 33.4 lbs/day
TP = 1 mg/L x 0.5 x 8.34 = 4.17 lbs/day

According to Angel Fire's permit reapplication materials, they currently discharge at 0.6 mg/L TP and 16 mg/L TN (average values). This puts them at a current discharge loading of 2.25 lbs/day for TP and 60 lbs/day for TN. The WWTP will need to be optimized to meet these WLAs, and NMED strongly recommends incorporating a compliance schedule of five years for them to do so. Additionally, this will give the Village time to consider NMED's temporary standard provisions, and to submit an application for a temporary standard if they qualify to do so. NMED will be finalizing the demonstration project we are developing with EPA and Tetra Tech in the near future, and expects that communities like Angel Fire will utilize this new process.

Condition 1.
Effluent limits for Total Nitrogen and Total Phosphorous shall be:

Effluent Characteristics	Discharge Limitations				Monitoring Requirements	
	Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	30-Day Avg.	7-Day Avg.	30-Day Avg.	Daily Max		
Total Phosphorus (*)	4.17 lbs/day			Report	2/Month	Grab
Total Nitrogen (*)	33.4 lbs/day			Report	2/Month	Grab

Comments That Are Not Conditions Of Certification

Comment 1.
Part I. Section A. 1. Final Effluent limits – 0.50 MGD design flow:
NMED suggests that a footnote be added to table 1 for Nitrogen monitoring that states:
Total Nitrogen is defined as TKN + Nitrite and Nitrite (as found in the TMDL).

Comment 2.
Part I. Section A. 1. Final Effluent limits:
NMED suggests that footnote 3., For E. coli bacteria be amended to:
E. coli bacteria may be reported as CFU/100 ml or MPN/100ml. E. coli bacteria 30 day averages are calculated as a Geometric Mean.

Comment 3.
Dissolved oxygen:
NMAC 20.6.4.900 H.1: High quality coldwater: dissolved oxygen 6.0 mg/L or more...

The Fact Sheet on page 7 explains the requirement for Dissolved Oxygen effluent limits of 4.5 mg/L. This effluent limit is found in Part I Table I Section A. Dissolved Oxygen limits of 4.5 mg/L as a daily maximum. This is below the water quality standard for this segment of the river. NMED request EPA reevaluate this requirement and consider establishing effluent limits consistent with the state's water quality standard of 6.0 mg/L. It appears that a standard of 5.0 mg/L was used in EPA's modeling exercise.

Comment 4.
The proposed permit in Part III, Section B.7. states:
PERCENT REMOVAL (PUBLICLY OWNED TREATMENT WORKS)
For publicly owned treatment works, the 30-day average (or Monthly Average) percent removal for Biochemical Oxygen Demand and Total Suspended Solids shall not be less than 85 percent unless otherwise authorized by the permitting authority in accordance with 40 CFR 133.103.

This requirement is not found in Part I. Section A. Table 1. Final Effluent Limits – 0.50 MGD design flow. NMED suggests this requirement for BOD and TSS be included in this table in Part I of this permit.

Comment 5.
NMED is concerned that Representative Sampling is not being conducted at this facility as noted in the Compliance Evaluation Inspection report conducted on June 29, 2017, under the section for Permit Verification:

> *EPA needs to determine if the final treatment unit is the retention pond or the UV system. The Permittee has reported samples from both locations (UV through an outfall – after retention pond).*

NMED suggests that effluent sampling from all treatment and holding pond pathways be sampled for at the same location beyond the end of the treatment works, at the outfall to the receiving stream. All effluent discharged to Cieneguilla Creek regardless of treatment and holding pond pathway must meet final permit effluent limits.

Comment 7.
Sufficiently Sensitive tests methods: NMED suggests for the sake of clarification, that the section in Part II be amended to state:

A. MINIMUM QUANTIFICATION LEVEL (MQL) & SUFFICIENTLY SENSITIVE METHODS
EPA-approved test procedures (methods) for the analysis and quantification of pollutants or pollutant parameters, including for the purposes of compliance monitoring/DMR reporting, permit renewal applications, or any other reporting that may be required as a condition of this permit, shall be sufficiently sensitive. A method is "sufficiently sensitive" when (1) the method minimum level (ML) of quantification is at or below the level of the applicable effluent limit for the measured pollutant or pollutant parameter; or (2) if there is no EPA-approved analytical method with a published ML at or below the effluent limit (see table below), then the method has the lowest published ML (is the most sensitive) of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters Nor 0, for the measured pollutant or pollutant parameter; or (3) the method is specified in this permit or has been otherwise approved in writing by the permitting authority (EPA Region 6) for the measured pollutant or pollutant parameter. The Permittee has the option of developing and submitting a report to justify the use of matrix or sample-specific MLs rather than the published levels. Upon written approval by EPA Region 6 the matrix or sample-specific MLs may be utilized by the Permittee for all future Discharge Monitoring Report (DMR) reporting requirements.
Current EPA Region 6 minimum quantification levels (MQLs) for reporting and compliance are provided in Appendix A of Part II of this permit. The following pollutants may not have EPA approved methods with a published ML at or below the effluent limit, if specified:

POLLUTANT	CAS Number	STORET Code
Total Residual Chlorine	7782-50-5	50060
Cadmium	7440-43-9	01027
Silver	7440-22-4	01077
Thallium	7440-28-0	01059
Cyanide	57-12-5	78248
Dioxin (2,3,7,8-TCDD)	1764-01-6	34675
4, 6-Dinitro-0-Cresol	534-52-1	34657
Pentachlorophenol	87-86-5	39032
Benzidine	92-87-5	39120
Chrysene	218-01-9	34320
Hexachlorobenzene	118-74-1	39700
N-Nitrosodimethylamine	62-75-9	34438
Aldrin	309-00-2	39330
Chlordane	57-74-9	39350
Dieldrin	60-57-1	39380
Heptachlor	76-44-8	39410
Heptachlor epoxide	1024-57-3	39420
Toxaphene	8001-35-2	39400

Unless otherwise indicated in this permit, if the EPA Region 6 MQL for a pollutant or pollutant parameter is sufficiently sensitive (as defined above) and the analytical test result is less than the MQL, then a value of zero (0) may be used for reporting purposes on DMRs. Furthermore, if the EPA Region 6 MQL for a pollutant or parameter is not sufficiently sensitive, but the analytical test result is less than the published ML from a sufficiently sensitive method, then a value of zero (0) may be used for reporting purposes on DMRs.

Comment 8.
NMED suggests the proposed permit in Part I. Section B. Schedule of Compliance be amended to reflect the changes in effluent limits and compliance schedule for Total Nitrogen and Total Phosphorous.

In addition to this change, NMED suggests a foot note be added to Part I Table 1. For Total Nitrogen and Total Phosphorous effluent limits:

*Monitor and Report from the effective date of the permit until 5 years from the effective date. Effluent limits effective 5 years and 1 day from the effective date of the permit.

End of Comments That Are Not Conditions Of Certification